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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,068	12/27/2001	Thomas P. Fowler	2001-040-NSC	9440
7590	03/03/2004		EXAMINER	
Timothy R. Schulte Storage Technology Corporation One StorageTek Drive, MS-4309 Louisville, CO 80028-4309			INOA, MIDYS	
			ART UNIT	PAPER NUMBER
			2188	
			DATE MAILED: 03/03/2004	
				5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/034,068	FOWLER, THOMAS P. <i>S</i>	
	Examiner Midys Inoa	Art Unit 2188	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 15 December 2003.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-41 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-41 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 27 December 2001 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on October 8th, 2003 has been considered by the examiner.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1, 11, 21, 31, and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The written description does not disclose allocating storage space **permanently** to the user. Applicant refers to page 6, line 12 through page 8, line 18 as support for such limitation, however, the examiner does not find sufficient support for the limitation in question. Additionally, in applicant's arguments reference is made to the invention's ability to "automatically transfer a portion of such allocated storage space to free storage space in response to user requests to increase or **decrease** the size of such allocated storage space" (Page 10, paragraph 3). If the user has the ability to release the space allocated to it, then such allocation is **not permanent**.
4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1, 11, 21, 31, and 36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not understood how storage space can be **substantially permanently** allocated to a user. If an allocation of space is permanent, it is unclear how it can be **substantially** permanent.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-8, 11-18, 21-28, and 31-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Feldman et al. (6,516,342).

Regarding Claims 1, 7-8, 11, 17-18, 21, 27-28, 31-33, 35-38, and 40, Feldman et al. teaches a system in which a Network Client 14 (“user”) extends its memory through the use of an allocated memory area 22a (“allocated storage space”) within a Network Server 16. The allocated memory area could be composed of one or more hard disk (“plurality of disk storage devices”) as it is common for servers or other computer systems to be equipped with more than one hard drive. Since the memory area 22a is allocated to the Network Client as needed, the remainder of the memory that is not being used is free storage space. Given that the communication between the Network Client and the Network Server is through a network (please see Figure 2) it is understood that the Network Client is located at a site remote from the

Network Server. Feldman et al. also discloses a memory server manager 20 (“controller”), which administers the use of the server’s memory and therefore, must be involved with the allocation of the memory area to the Network Client (Column 4, lines 7-39). Additionally, the system of Feldman et al. allows for **Network Clients to extend their memory capability automatically on demand** (“automatically transferring a portion of such allocated storage space... in response to user request”, Column 4, lines 58-62). Although Feldman et al. discloses suspension of the server’s interaction with the client upon the reduction of memory requirements, it is understood that **in cases where memory requirements are always high, the interaction between the memory server and the client can be a permanent arrangement.**

Regarding Claims 2-3, 12-13, and 22-23, Feldman et al. discloses that the memory server manager 20 (“controller”) can be run as a user application (Column 4, line 19). It is understood that for the memory server manager to be “run” such application must be composed of some computer software (“computer program”). Furthermore, in order for the memory server manager to “run” it must also have access to a processor, which can process the software that it is composed of.

Regarding Claims 4, 14, and 24, Feldman et al. also discloses a memory server manager 20 (“controller”), which administers the use of the server’s memory and therefore, must be involved with the allocation of the memory area to the Network Client (Column 4, lines 15-19). Since this component allocates the memory that the Network Client needs, the realization that such memory is needed acts as a request from the Network Client (“user”) to the memory server manager (“controller”).

Regarding Claims 5, 15, and 25, Feldman et al. discloses that the memory server manager 20 (“controller”) can be run as a user application (Column 4, line 19). It is understood that for the memory server manager to be “run” such application must be composed of some computer software (“computer program”). Since the memory server manager (“computer program”, “controller”) is located at the Network Server along with the server memory 22a, composed of a number of hard drives (“plurality of storage devices”), both of these components are to be found at a remote server site.

Regarding Claims 6, 16, 26, 34, and 39, Feldman et al. teaches a virtual memory manager 18 (“storage device manager”) within the Network Client which aids in the migration of data to the remote allocated memory 22a and which logs in a memory server translation table the virtual memory address of the client (Column 5, lines 11-30).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 9-10, 19-20, and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Feldman et al. (6,516,343).

Regarding Claims 9, 19, and 29, Feldman et al. teaches a system in which a Network Client 14 (“user”) extends its memory through the use of an allocated memory area 22a (“allocated storage space”) within a Network Server 16. Given that the communication between the Network Client and the Network Server is through a network (please see Figure 2) it is

understood that the Network Client is located at a site remote from the Network Server.

Feldman et al. also discloses a memory server manager 20 (“controller”), which administers the use of the server’s memory and therefore, must be involved with the allocation of the memory area to the Network Client (Column 4, lines 7-39). Feldman et al. does not teach the use of the memory server manager to decrease the amount of memory space that is allocated to the user. It would have been obvious to one of ordinary skill in the art at the time the invention was made to give the memory server manager the ability to decrease the amount of memory being allocated to the Network Client since such ability would enable the system to allocate memory more efficiently to other applications when the Network Client does not need all the memory that is being allocated to it.

Regarding Claims 10, 20, and 30, Feldman et al. also discloses a memory server manager 20 (“controller”), which administers the use of the server’s memory and therefore, must be involved with the allocation of the memory area to the Network Client (Column 4, lines 15-19). Since this component allocates the memory that the Network Client needs, the realization that such memory is needed acts as a request from the Network Client (“user”) to the memory server manager (“controller”).

Response to Arguments

10. Applicant's arguments filed on December 15th, 2003 have been fully considered but they are not persuasive. The invention of Feldman et al. allows for **Network Clients to extend their memory capability automatically and on demand** (“automatically transferring a portion of such allocated storage space... in response to user request”), this is why the memory server is a dedicated machine available at all times. Although Feldman et al. discloses suspension of the

server's interaction with the client upon the reduction of memory requirements, it is understood that **in cases where memory requirements are always high, the interaction between the memory server and the client can be a permanent arrangement.**

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Midys Inoa whose telephone number is (703) 305-7850. The examiner can normally be reached on M-F 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (703) 306-2903. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2188

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Midys Itoa

Midys Itoa

Examiner

Art Unit 2188

MI

Mano Padmanabhan
3/26/04

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SUPERVISORY PATENT EXAMINER

TC21W